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EDUCATIONAL TESTS FOR USE IN HIGH SCHOOLS, SECOND REVISION

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EDUCATIONAL TESTS FOR USE IN HIGH SCHOOLS, SECOND REVISION

The present status of standardized educational tests¹ in high schools. For the first few years following the beginning of the standardized test movement a couple of decades ago, the use of such tests was urged with great enthusiasm and eloquence by many of those who spoke at educational gatherings and contributed to educational literature. It was often implied and sometimes very definitely stated, that such tests should entirely replace examinations constructed by classroom teachers. Recently, however, the critical attitude toward standardized tests, formerly expressed by only a few of the workers in this field, has come to be much more general. Those who construct, employ, and otherwise deal with tests are recognizing their defects and limitations as well as their advantages. Indeed, so much adverse criticism has been offered by some persons who are well qualified to speak, that many teachers and others interested have become doubtful as to what degree of merit such tests really possess. There is no doubt that standardized educational tests, when properly used, are valuable instruments in the hands of teachers, supervisors, and administrators. It should be remembered, however, that, as is true of many other instruments of value, they are imperfect and must be employed with due regard to their imperfections and limitations. When using them one should bear in mind that in general they yield more accurate measures of intelligence, achievement, and so forth, than can be secured through other practicable means of testing, but that the scores secured are rarely perfectly accurate and not infrequently contain errors of considerable magnitude. Furthermore, one should keep in mind the fact that just as is true in the case of textbooks and practically all other materials used in instruction, the merit of different standardized or so-called standardized tests varies greatly. Hence, it is not sufficient to have a critical attitude toward standardized tests in general, but one should have this attitude towards the individual standardized tests which he is considering using.

¹A standardized test is one which has been given to a large enough number of individuals that satisfactory norms are available. In speaking of a standardized or standard test, however, one commonly thinks of one which not only has satisfactory norms, but but also was constructed with a considerable degree of care and which contains exercises calling for pupil responses in such forms that there can be little difference of opinion about their correctness.

Moreover, in a complete testing program the use of standardized tests is only one of several parts. Such a program should generally consist of standardized tests, ordinary discussion or essay examinations,¹ and so-called "new examinations."²

From a beginning only about twenty years ago and very slow growth during most of the first half of that period, the number of standardized tests available for use in education has increased until now the situation is approaching a condition similar to that which exists in the case of school textbooks. That is to say, so many tests have appeared and so many more are appearing that it is practically impossible for any one person to be familiar with all of them, or even with all of those in each of several school subjects. At the present time the writer has listed almost a thousand different standardized or near-standardized tests and scales³ in the school subjects and other fields closely connected with education. In many cases what is listed as one test or scale is really not merely one but a series of two or more, in a few cases the number ranging even as high as from 40 to 100. Moreover, in many cases there are from two to four or occasionally even more duplicate forms of each test. The total number of educational measuring instruments, therefore, counting all parts and forms, runs well into the thousands. In arithmetic alone there are about 70 different tests or series of tests; in history, language, and reading about 50 or 60 each, and so on down to a few of the less commonly taught subjects which possess only one or a very few each. There are well over a hundred intelligence tests. In most of the subjects in which there are large numbers of tests it is no longer true as it was formerly that some one or a few tests possess outstanding merit, but rather there are frequently a half dozen or more among which it is difficult to base a preference upon satisfactory reasons. Although this condition makes it difficult to select the tests to be included in a list, such as that which follows, it renders it still harder

¹A discussion or essay examination is one of the type commonly employed which requires a considerable amount of writing on the part of the pupil and in which pupils are asked to discuss, explain, describe, summarize, and so forth.

²The so-called "new examination" or "new-type examination" includes a number of forms of exercises such as the true-false, matching, completion, multiple-answer, and so forth, which call for very brief pupil responses concerning the correctness of which there is little room for difference of opinion.

³A scale, as distinguished from a test, is a measuring instrument composed of items or exercises of increasing difficulty or merit. The term is especially used in connection with such subjects as handwriting, English composition, and drawing, in which the measuring instrument generally consists of a series of specimens arranged in increasing order of merit, with which a pupil's performance is compared.

for the classroom teacher to make a choice and, therefore, suggests the value of a recommended list.

Although it is true that the subjects, in which the largest numbers of standardized tests have been constructed, tend to be those usually taught in elementary rather than in high school, there are also rather large numbers of tests in some of the commonly taught high-school subjects. One of the four subjects named above as having the largest numbers of tests, history, is more a high-school than an elementary-school subject and another, language, is common to both levels. Also a few of the reading tests and even one or two in arithmetic are likewise designed for high-school use. In addition to these, however, there are several subjects taught largely, or even almost entirely, in high school in each of which there are approximately 20 standardized tests. These are algebra, Latin, English composition, and home economics. Thus the selection of tests in the high-school field is only moderately easier than in that of the elementary-school.

Limitations of the use of achievement tests in high schools. The status and nature of the educational objectives of the high school introduces certain limitations upon the use of achievement tests in addition to those which apply to their use elsewhere. In the high school there is far less agreement in regard to the objectives of instruction than is the case in the elementary school. In the latter the minimum essentials in arithmetic, silent reading, spelling, handwriting, and perhaps other subjects have been fairly well agreed upon. On the other hand, in history and literature, for example, practically the only general agreement as to what should be taught in high school concerns a very restricted list of facts. In algebra, geometry, and beginning foreign language there is perhaps somewhat greater agreement, but in the upper years of foreign language, science, and most other subjects there is probably even less than in history and literature. The writer believes that there is justification for this relatively slight consensus of opinion as to what should be taught in most high-school subjects, but, regardless of whether it is justified or not, it is a fact which has a significant relation to the use of standardized tests. The selection and inclusion of exercises in a test offered for general use implies that these exercises should be included in the objectives of instruction in that subject. No matter how well the selection of exercises can be justified, the pupil responses thereto are not fair measures of pupil achievement or teacher efficiency unless they agree with what has actually been taught.

A second important limitation upon the use of standardized tests in high school is that the outcomes of instruction desired cannot be

measured as easily as can those emphasized in the elementary school. Facts in arithmetic, spelling, geography, and history and skill in calculation, spelling, reading, and expression are much more easily measured than are the ideals, attitudes, and perspectives which are important and desirable outcomes of high-school instruction. In fact it must be frankly admitted that at present we are not able to measure these more intangible outcomes in such a manner as to secure results of much value.

The purposes to be realized by the use of standardized educational tests in high school. The list of purposes given below is the same as that suggested elsewhere¹ for elementary schools but the order, which is intended to be that of importance, is different. These purposes are as follows:

1. Educational and vocational guidance
2. Diagnosing pupils in order to provide remedial instruction
3. Promoting and classifying pupils
4. Evaluating school efficiency
5. Educational research

It will be noticed, by anyone familiar with the order in which these purposes are listed for elementary schools, that the change made consists in rating guidance as more important and diagnosis as less important in high school. It is true in the high school much more than in the elementary school that many pupils fail, or, if they do not fail, lack much of realizing their maximum possibilities, because they do not have the intelligence required to do the work which they undertake, or because they are not interested therein. In other cases, the causes of failure may be a lack of training in how to study, inability to read comprehendingly and at a fairly rapid rate, or a lack of the specific knowledge or ability required in a given subject. A large per cent of these failures probably could be avoided by guiding pupils in their selection of subjects so that they would not undertake those for which they are unfitted. Therefore, a valuable function of standardized tests in the high school is to yield prognostic or predictive measures of the probable ability of pupils in the various subjects. Many tests, not designed particularly for this purpose, have some value along this line, but, in addition to these, a few have been constructed with this as their distinctive function.

The position of diagnosis in the list of purposes is lower for high school than for elementary school because the nature and organization of the work carried in the former does not offer such an opportunity for

¹ODELL, C. W. "Educational tests for use in elementary schools, second revision." University of Illinois Bulletin, Vol. XXIV, No. 49, Bureau of Educational Research Circular No. 49, p. 7.

diagnosis. A pupil's work cannot be diagnosed until he has studied the subject or topic in question. In the elementary school pupils follow a number of subjects throughout several years. In many instances the whole subject is covered in an elementary fashion in the lower or intermediate grades and more thoroughly in the upper grades. In such cases there is opportunity for frequent diagnosis and consequent remedial instruction before the study of the subject is completed. In high school, however, the period during which most subjects are carried is shorter, often being only one semester or one year, and when a topic has once been covered it is rarely treated again, except in an incidental fashion. The opportunities for diagnosis and succeeding remedial instruction are, therefore, much more limited. It is possible, of course, to do a limited amount in the subjects which continue even only one semester and still more in those which last throughout a year, but the amount practicable is decidedly limited. Even in some of the subjects, such as literature, history, or Latin, which are frequently carried for three or four years, many of the same topics do not recur, but each semester's or year's work deals with a different portion of the general field. Thus diagnosis followed by remedial instruction is difficult even in these subjects.

Planning a testing program. The selection and use of a standardized educational test is not an isolated detail of school procedure, but one which should be considered in relation to other instructional, supervisory, and administrative activities. In other words, a teacher, supervisor, or administrator planning to make use of standardized tests should map out the general testing program to be followed for a semester or year just as he plans his general program of other work. This requires not merely the formulation of the purposes of testing and the selection of tests according to the criteria given later as well as in agreement with these purposes, but also the consideration of other factors. The previous acquaintance and experience of the teacher with standardized tests, the former practices of the school system with regard to their use, the subjects which have been most emphasized or those in which instruction appears to be least efficient, and other such facts should frequently play an important part in deciding just what tests will be used and when they will be given. If teachers are unfamiliar with standardized tests, a beginning should usually be made with tests which are relatively easy to give and score and the resulting values of which will be easily apparent. Furthermore, in such a situation it is rarely wise to give very many tests within a short period of time. If innovations in teaching methods are being tried out in certain subjects this may be a

good reason why testing should be somewhat concentrated in those subjects. Unless such special reasons exist, tests of general intelligence and silent reading ability will usually yield the most helpful information concerning pupils. Next to these in value are prognostic tests and perhaps those in elementary algebra and foreign language.

The frequency with which tests should be given depends both upon the functions they are to serve and the previous practice of the school with regard to using tests, in addition to the amount of money available for the purpose. If reliable intelligence tests are used, it is rarely necessary to test the same pupils more than once within a period of two or three years. In the school subjects most legitimate purposes can probably be rather well attained by using standardized tests once a semester. The errors in test scores are usually great enough that, if tests are given at intervals of a month or six weeks, the increase from time to time is too small to be measured reliably. This is practically always true of individual scores and often even so of class averages. However, no rules possessing universal application can be laid down. If the results of tests given near the first of the year reveal that the pupils are well above the standards which they are expected to attain it will likely be unnecessary to test them again during the same year, whereas, if they are decidedly below such standards, rather frequent tests for diagnosis, and also for determining the efficiency of the remedial methods used, may be highly desirable. On the whole, it is true in testing, as in most other activities, that it is better to concentrate for a period of time, perhaps one year, perhaps longer, on a few subjects and then for another period on another group of subjects, and so on, than to attempt to emphasize all at once with the probable result that too little attention is given to any one to yield satisfactory results.

Criteria for selecting tests. In addition to having a well-defined purpose there are certain other criteria which should guide one in selecting a standardized test. The scope of this circular does not permit their complete enumeration and discussion, but the following summary mentions the chief points to be observed. One should, if possible, not merely try to rate tests on these points by studying the tests themselves, but also by consulting critical studies of the tests and utilizing the data which are available, especially those which indicate how reliable¹ and valid² the tests are. In addition to utilizing whatever information may

¹A test is reliable when it measures whatever it does measure accurately, or, in other words, if the same results are secured when it is given two or more times to the same pupils.

²A test is valid when it measures the ability or characteristic which it is supposed to measure.

be obtained from critical studies, there are a few relatively simple criteria which should always be applied.

1. The test should be reasonably simple to give and should not require a large amount of time for scoring. The scoring also should be highly objective.¹ This criterion is particularly important when educational tests are being introduced into a school system.

2. No test should be selected for use unless it is accompanied by detailed directions for its giving and scoring.

3. When a second application of the test is desired the use of a duplicate form is recommended. Frequently such forms have been found to be lacking in equivalence and, for this reason, it is important that the degree of their equivalence be known.

4. Usually a test should not be chosen unless satisfactory norms are available. Occasionally the use of a test which is in process of standardization is justified. However, for the most part, it is wise to limit the selection to those tests for which satisfactory norms have been determined.

5. The cost of the test materials deserves consideration, but in estimating it one should always take into account the amount and significance of the information yielded by the test. We now have available batteries of educational tests which yield measures of achievement in several different fields. Although the expense per pupil for such a battery of tests may seem large, it may prove much less, when considered with reference to the information yielded, than that for other tests having a smaller cost per pupil.

The present interest in examinations, especially those of the objective type. In connection with this brief discussion of standardized tests and their place in a complete testing program, it seems appropriate to call attention to the great amount of interest recently manifested in the improvement of examinations, especially in the construction of the new or objective type. Hundreds of magazine articles and educational addresses have dealt with the topic, emphasis has been placed upon it in many courses given prospective and experienced teachers, and in many other ways interest has been aroused and information disseminated.

The comparative advantages and disadvantages of standardized tests and examinations constructed by classroom teachers. It has been stated that both standardized tests and the two varieties of examina-

¹A test or score is objective if it is not influenced by the personal opinion or judgment of the person doing the scoring, that is, if all competent scorers agree.

tions constructed by teachers have their place in a complete testing program. It seems desirable, also, to mention briefly the mutual advantages and disadvantages of the two kinds of measuring instruments and to show that each performs certain functions of measurement more satisfactorily than does the other. The additional comment should probably be made that some of the advantages of standardized tests over teacher-made examinations can be greatly reduced if not entirely eliminated by applying certain of the principles followed in the construction and use of the former to the latter.

One of the most important advantages possessed by standardized tests is that norms are available for them so that the achievement of a group of pupils can be compared with that of other pupils of the same age, in the same grade, or in some other homogeneous group. This renders it much easier to rate the efficiency of a school system or of a teacher, but sometimes has a tendency to lead to the undesirable acceptance of general standards of achievement as appropriate goals for a particular group of pupils, when, because of differences in pupil ability or other conditions, such standards are inappropriate. A second advantage of standardized tests is that they are usually constructed by persons who are relatively expert in making them and that much more care is devoted to determining their content and form. Furthermore, largely because of the fact just stated, they are generally more objective, reliable, and valid. Their objectivity and reliability, however, are not as much greater than that of well constructed, prepared, and scored discussion examinations as has often been supposed and no greater than that of new-type or objective tests. On the other hand, standardized tests are not usually well adapted to local courses of study and the instruction of individual teachers, and, therefore, are less valid as measures of certain portions of what has been taught than are ordinary examinations. In many cases, duplicate forms of standardized tests do not exist and the content covered is such that it is undesirable to repeat the same form; therefore, progress cannot be satisfactorily measured. One of the chief advantages claimed for standardized tests is that their use saves much of the teacher's time. Undoubtedly this is true, though it requires no more time to score new-type tests than those which have been standardized. On the other hand, the careful, thoughtful preparation of a set of examination questions by a teacher leads to an evaluation of what she has been attempting to do in the classroom that is fully worth all the time it takes. A final disadvantage of standardized tests is that, if sudden exigencies arise, they cannot be secured soon enough

for use. Their cost is another reason for not using them on every occasion. It usually ranges from one to five or six cents per pupil.

The actual administration of standardized tests. To carry out a successful and profitable testing program it is not only necessary that the tests employed be selected in view of the desired results and of the criteria named above, but also that they be properly given, scored, and the results correctly interpreted. In connection with the giving and scoring of tests the one point which needs emphasis above all others is that those giving them should follow in all points the directions accompanying the tests. Such directions can frequently be improved upon, but it is not the place of the teacher to do so, since this will prevent the results obtained from being strictly comparable with those secured by others who have employed the same test. The directions accompanying some tests are not complete. If these are to be used, those who are to give and score them should examine enough other similar tests or treatises on tests to find what is the accepted procedure in each of the points in question and then follow this procedure.

In connection with the interpretation of test scores, it is difficult to summarize in a few words just what should be done. One should be careful to consider all causes which may have produced errors in the scores and all data relevant to the pupils' achievements. For example, in arriving at the significance of the scores earned by a class on a history test, it is helpful to have information concerning the general intelligence level and the reading ability of the class, to know how long history has been studied, if the test was given under normal conditions or if some disturbing element affected the pupils' work upon it, and so on, as well as to know what other pupils of the same grade, age, and mental ability, score on the same test.

A short list of references on testing. In connection with the brief discussion of tests and the list given below, it seems in place to mention a few of the most useful sources to which one may refer.

The Bureau of Coöperative Research of Indiana University has published a "Bibliography of Educational Measurements" which attempts to list all standardized tests and to give for each, more or less, the same information as is given about the tests mentioned in this circular. The first revision of this list appeared in 1925 and a second revision is due in 1927.

"The Bibliography of Educational and Psychological Tests and Measurements" issued as Bulletin No. 55, 1923, of the United States Bureau of Education, contains a practically complete list of the refer-

ences on standardized tests up to the time of its publication. These are so classified as to make the bibliography easily usable. So much has been done in this field within the past few years, however, that a bibliography only four or five years old is largely out of date.

Undoubtedly, the best rather elementary book devoted to educational tests and measurements is the revised edition of Monroe, DeVoss, and Kelly's "Educational Tests and Measurements," published by Houghton Mifflin Company. In addition to the chapters discussing testing programs, the construction of tests, the meaning of scores, the uses of tests, and the improvement of examinations, this contains descriptions and criticisms of a fairly large number of elementary-school and a smaller number of high-school tests, with suggestions as to what to do with the results. Its chief limitation is the same as that mentioned for the United States Bureau Bibliography, that any publication in this field soon becomes largely out of date.

Trabue's "Measuring Results in Education," published by the American Book Company, provides a good elementary introduction to the use of tests and also to statistical methods in education. It does not describe nearly as many tests as Monroe, DeVoss, and Kelly, and is not as critical in its discussion of them, but gives one a rather good idea of the significance and possibilities of the testing movement.

Van Wagenen's "Educational Diagnosis and Measurement of School Achievement," published by the Macmillan Company only about a year ago, is a totally different type of book. It does not devote much attention to general principles or to the description and use of a large number of particular tests, but rather presents in considerable detail, certain phases of the technique of employing test results in practical school procedures. It is tedious reading and in some places requires very close attention to tables and figures, but, nevertheless, serves to acquaint the careful reader with many of the commonly accepted remedial and follow-up procedures.

Monroe's "Introduction to the Theory of Educational Measurement," published by Houghton Mifflin in 1923, is a more advanced treatment than any of those mentioned above. It discusses the nature of educational measurements, the construction, evaluation, and use of tests, and related topics in critical fashion, providing the best and the only rather complete advanced treatment of the subject. The writer would not recommend that the ordinary beginner in the field read this book until after a more elementary one, such as Monroe, DeVoss, and Kelly, or Trabue, has been mastered.

Another relatively advanced text is McCall's "How to Measure in Education," published by the Macmillan Company some five years ago. Part I, which deals with the use of measurements, is of most practical value, whereas Part II, dealing with the construction and standardization of tests, is of more interest to the expert or specialist in this field. This book does not cover the subject in as well-rounded a way as the one last mentioned.

The only book entirely devoted to high-school tests is Ruch and Stoddard's "Tests and Measurements in High-School Instruction," published by the World Book Company during the current year (1927). The four major parts of this book deal respectively with the status, uses, limitations, and selection of tests, descriptions thereof, informal objective examination methods, and the construction of tests. More experimental data concerning the validity and the reliability of particular tests is introduced than is usually found in similar books. Though not nearly all tests suitable for use in high school are described, most of those possessing the greatest merit are mentioned. Certain chapters of the book are relatively difficult and technical, but most of it is intended to be understandable by the beginner in this field.

In addition to these, a number of other books dealing with the general topic have appeared within the last few years. While several of them have distinctive merits they are not, in the opinion of the writer, as helpful nor as well-balanced as those briefly described above. Much material on tests may also be found in the publications, especially the doctor's dissertations, of the Bureau of Publications of Teachers College, Columbia University. These contain many critical studies of tests as well as accounts of their use. In addition to the sources already referred to, hundreds and even thousands of bulletins, circulars, pamphlets, and magazine articles along this line have appeared, many of which contain very helpful material in connection with the critical evaluation of tests, the interpretation and use of results, follow-up programs and other related topics. Most of the books on this subject contain references to fairly large numbers of these articles. Among the periodicals in which many of them have appeared may be named the *Journal of Educational Administration and Supervision*, *School and Society*, the *School Review*, the *Elementary School Journal*, and the *Teachers College Record*. Anyone who has access to a library fairly well stocked with recent educational publications should have little trouble in finding a large amount of literature dealing with this general subject.

Scope of the following list. It has been the writer's intention to include in the following list only tests which are available for general

use, and which possess enough merit to warrant their utilization. Tests which he considers distinctly unsatisfactory are omitted. In view of the large number of tests now published, it is practically impossible for anyone to make such a careful study of them that he can fully justify the inclusion or exclusion of each in connection with such a list as that given below. This is especially true of relatively new tests which must be judged chiefly by their form and appearance and not by the actual results of their use. It is very probable that tests have been omitted which possess greater merit than some included in the list, and likewise that some have been included which should not be recommended.

The tests named are also limited to those in school subjects and in general intelligence. Many tests and scales, such as those for measuring school buildings, determining vocational aptitudes, rating character and personality, and so forth, have a distinct value in educational work, but have not been included. A very few, primarily intended to be used for practice or drill purposes, also, several not yet standardized, have been described.

In many cases tests are intended and suitable for use in both the elementary and the high school. When such tests meet the other criteria of selection they are included in the following lists. There are many other tests, however, primarily or entirely designed for use in the elementary school, which may at times be profitably given in the high school. A very few of these have been included, but most of them have not been mentioned. For example, with the exception of one series in commercial arithmetic, no arithmetic tests are listed although it is possible that a high-school teacher might wish to use them in beginning algebra or elsewhere. Similarly, no handwriting scales are included, although, sometimes they are used in connection with high-school English work. Only a few reading and grammar tests are named. Others, though primarily suitable for the seventh and eighth grades, may at times well be used in high school. The reader who is interested in tests such as these, that is, those intended for the elementary school, but having an occasional place in the high school, should consult the companion circular to this one, entitled, "Educational Tests for Use in Elementary Schools, Second Revision."

In listing each test the exact title has been given with information as to the various parts or divisions and forms, and as to the grades for which it is intended. Following this is a very brief description and criticism and finally the name and address of the publisher with the price quoted at the time of writing. In some cases tests may be secured

from service bureaus of state universities and other sources than the publisher, but no attempt has been made to name such sources.

Prices. The prices given in the following list are those quoted by publishers in their last announcements or price lists available at the time of writing. In practically all cases publishers reserve the right to change prices without notice, but such changes are not very frequent and, when they do occur, are not likely to be great. It will be noticed that the prices given are not always for the same number of copies, but in some cases for a single copy, in others for 25, 100, or some other number. The reason for this diversity is that the publishers' methods of giving quotations have been followed. Ordinarily when a price is quoted for a relatively small number of tests, such as 25, it means that they are sold only in lots of this number or some multiple thereof. When prices are quoted for single copies and usually when quoted for 100 copies the exact number desired can be purchased. The price given for one or any number of copies of a test which possesses more than one form is for the stated number of copies of any one form, unless otherwise stated. Also in some cases the price quoted for a number of copies includes a set of directions for giving and scoring, whereas in others it does not. If the teachers' manual or directions for giving and scoring is not priced separately, it is to be understood that a copy is included in each set containing the number of tests for which the price is given. In many cases, publishers who quote prices for 25, 100, or some other number of tests have special prices for a specimen set including a single copy of the test, a teacher's manual, and so forth. Such prices have not been included. Occasionally, the purchaser is required to pay transportation charges in addition to the prices quoted, but this is not generally true.

It should be noted that in the case of scales, such as those in handwriting, composition, and so forth, which are to be used only by the teacher or perhaps posted so that pupils can see and use them but do not require individual copies, only one is needed for a class. In the case of most tests, one will be needed for each member of the class and ordinarily an additional copy for the teacher, with one set of directions for giving and scoring.

AGRICULTURE

National Agricultural Tests

Vegetable Gardening Information

Poultry Information

These tests measure information through true-false statements, matching exercises, identification of pictures, and so forth. Several other similar tests on other phases of

agriculture are in course of preparation and will probably appear as standardized tests in the near future.

Rural Education Department, Pennsylvania State College, State College, Pennsylvania. Single copy, 15c; 50c per 8; \$1.00 per 24; \$2.00 per 50.

COMMERCIAL SUBJECTS

ARITHMETIC

Kinney Scale of Problems in Commercial Arithmetic

Tests¹ A; Parts I and II

Tests B and C; Forms 1 and 2 of each

Part I of Test A covers computation in the four fundamentals and Part II aliquot parts. Test B presents simple written problems in commercial arithmetic. Both A and B are to be used at the end of the first semester or perhaps sooner. Test C is similar to B, but is intended for use at the end of the second semester. Provision is made for tabulation and analysis of errors by the pupils themselves.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 25.

BOOKKEEPING

Carlson Bookkeeping Tests

Series A; Tests 1, 2, 3, 4, 5, 6, 7, 8, and 9

Series B; Tests 1 and 2

These tests are not thoroughly standardized, but probably will be fairly soon. They are, however, the only ones of merit in this field with which the writer is familiar. They cover different phases of the subject, each dealing with three or more such phases, and are intended to be given at different times during the course, from the completion of the first few weeks to the end. Although designed especially for use with "Twentieth Century Bookkeeping," they appear fairly well adapted for use with most texts in this subject.

*South-Western Publishing Company, 1-3 West Third Street, Cincinnati, Ohio.
No charge except postage.*

STENOGRAPHY

Blackstone Stenographic Proficiency Test

Typewriting; Forms A, B, C, D, and E

Each of these tests requires the copying of a typewritten letter. Scoring is upon the basis of both speed and accuracy.

World Book Company,² 2126 Prairie Avenue, Chicago. \$1.00 per 25.

¹In practically all cases in which more than one test or part is mentioned, each covers a different body of subject matter, or perhaps the same subject matter in a different way. On the other hand, when more than one form is mentioned it means that these are duplicates, that is, they cover the same subject matter in essentially the same manner, but do not contain the same exercises or items. *Series* is sometimes used as synonymous with *form*.

²The address given above is the western office of the World Book Company. It may also be addressed at its home office, Yonkers-on-Hudson, New York; likewise at 14 Beacon Street, Boston; 149 New Montgomery Street, San Francisco; 110 West Peachtree Street, Atlanta; 1307 Pacific Avenue, Dallas; Portland, Oregon; and Manila, P. I.

Thurstone Examination in Typing

Form A

This test measures ability to type corrected typewritten copy, to tabulate and type items written in longhand, and to find and correct misspelled words. It probably gives a better measure of general stenographic ability than does the test described just above.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.50 per 25.

DRAWING

Kline-Carey Measuring Scale for Free-Hand Drawing

Part I—Representation, Revised

This really consists of four scales dealing, respectively, with houses, rabbits, human figures in action, and trees (brush drawings). Each scale consists of 14 specimens ranging in merit from zero up to somewhere near 100 with a criticism of each specimen showing its strong and weak points. Although contained in a booklet, the scales can be unfolded so that all of each is visible at once. The authors have stated that they expect to prepare Part II on design and composition and Part III on color, but these have not yet appeared.

Johns Hopkins Press, Baltimore, Maryland. Copies of the four scales and record sheet, 30c; booklet containing the four scales, a brief account of revision, directions for use and record sheet, 60c.

Spink Grading Chart for Mechanical Drawing

This chart or scale includes six steps, in each of which there are samples of lettering, numbering, and simple drawings. In addition to the high-school chart the same sheet contains one for the elementary grades which makes use of five of the same sets of specimens, but assigns them different degrees of merit. Apparently this scale has not received wide use.

Safety Electric Heater Company, 761 Fourth Avenue, Faribault, Minnesota. Single copy, 75c.

Thorndike's Scale for General Merit of Children's Drawings, Revised and Extended

This extension of Thorndike's original scale contains many more specimens, there being several at almost every step. The subjects dealt with are houses and human figures, the latter both singly and in groups. This scale has probably received much wider use than that of Kline and Carey, but the writer doubts if it can be used more easily or yields more reliable results.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, 50c.

ENGLISH COMPOSITION

Clark Letter Writing Test

The various parts of this test require pupils to identify the proper expressions for salutations and complimentary closes in both business and social letters, to put in proper

form the jumbled portions of two letters, and to arrange in order the proper portions of a business and a social letter.

Public School Publishing Company, Bloomington, Illinois. \$3.00 per 100.

Hudelson Typical Composition Ability Scale

This has largely superseded the same author's earlier English Composition Scale and is probably the most widely used scale for general purposes in this subject. It is printed on a single sheet instead of in booklet form as was Hudelson's first scale. The specimens in the scale are narratives dealing with "A Snowball Fight on Slatter's Hill." They are rated in terms of Hillegas values so that scores given are comparable with those from many other scales.

Public School Publishing Company, Bloomington, Illinois. Single copy, 10c; \$1.00 per 25; teacher's handbook, 10c.

Leonard's Scale for the Judgment of Composition Quality Only

This scale, which also uses Hillegas ratings, consists of compositions on the general subject, "Doing Something Difficult but Worth While." At some steps there are two specimens, at others only one. It is rather unique in that no errors in the mechanics of English appear. Following each specimen its chief values and defects are pointed out. Although most of the compositions included were written by elementary grade children, the scale can well be used in at least the lower two years of high school.

National Council of Teachers of English, 506 West Sixty-Ninth Street, Chicago. Single copy, 15c.

Lewis English Composition Scales

These five scales are intended to be used in measuring the following types of writing: order letters, letters of application, narrative social letters, expository social letters, simple narration. The original form of these scales has been revised so that now each consists of from eight to eleven specimens ranging in value from zero, or thereabouts, up to eighty or above, and also so that all of each scale can be before the eyes at once. For rating letters of the types dealt with, the first four of these scales are undoubtedly the best instruments available. On these scales also the ratings are in terms of Hillegas values.

World Book Company, 2126 Prairie Avenue, Chicago. Booklet containing all five scales, 25c.

Nassau County Supplement to the Hillegas Scale

This is a revision of the original Hillegas Scale which improved upon it in several points and largely superseded it. Since the appearance of the Hudelson and other scales, however, it has not received such wide use as formerly.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, 8c; \$5.00 per 100; booklet describing derivation, giving directions, norms and practice samples, 35c.

Van Wagenen English Composition Scales

This series consists of three scales intended for the measurement of exposition, narration, and description, respectively. In each scale are fourteen or fifteen specimens. Each is rated separately on thought content, structure, and mechanics, the ratings ranging from approximately zero to about 100 and being equivalent to Hillegas values mul-

tiplied by ten. For rating expository and descriptive themes these scales are probably the best available.

World Book Company, 2126 Prairie Avenue, Chicago. Booklet containing the three scales, directions for their use, and practice material, 25c.

Willing Scale for Measuring Written Composition

On this scale are eight samples at the even 10's, from 20 to 90 inclusive. Provision is made for rating on both story value and form value, the latter being determined by counting the mistakes in spelling, punctuation, and syntax. There is apparently no reason why the method for determining the form value cannot be used in connection with story value according to other scales, but this seems to have been done very rarely.

Public School Publishing Company, Bloomington, Illinois. Single copy, 9c; three or more copies, 6c each.

LANGUAGE AND GRAMMAR

Briggs English Form Test

Forms Alpha and Beta

Each test consists of twenty sentences of increasing length which measure pupils' knowledge of seven of the most common elements of form.

Bureau of Publications, Teachers College, Columbia University, New York City. 80c per 100; scoring stencils, 10c.

Clapp-Young Self-Marking School Tests—1. English

Form A

This test contains three parts which deal, respectively, with punctuation and capitalization, word form and usage, and grammar. By an ingenious device the answers as given are automatically recorded as right or wrong and when a pupil has finished his work he merely has to release a few clips to be able to learn the correctness of his answers.

Lakeland Publishing Company, 217 North Mill Street, Madison, Wisconsin. \$1.25 per 25.

Columbia Research Bureau English Test

Forms A and B

The four parts of this test measure knowledge of spelling, mechanical accuracy in composition, vocabulary, and literary knowledge. The material is rather difficult, being hard enough for students in the upper years of high school and in college. The test is also rather long, requiring two hours. Apparently the only norms available at present are for entering college freshmen.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.40 per 25.

Cross English Test

Forms A, B, and C

The parts of this test deal with spelling, punctuation, recognizing a sentence, verb and pronoun forms, idiomatic expressions and miscellaneous faulty expressions. As was the case with the Columbia Research Test the available norms are chiefly those for college freshmen and the test is well suited to college as well as to upper grade high-school students.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.20 per 25.

Denver Curriculum Tests in English

Sentence Structure

Composition and Grammar

Minimum Essentials of Grammar and Punctuation

Grammar, Vocabulary, and Punctuation

The first two of these tests are intended for use in Grades VII, VIII, and IX, the third is for high-school freshmen and sophomores, and the last for sophomores only. There is no good reason apparent, however, why they may not have a wider range of use. The first requires the recognition of groups of words which form sentences, the classification and punctuation of sentences, the recognition of the correct use of "and" and "but," the selection of sentences which should be broken up into two or more parts, and the comparison of pairs of paragraphs on the basis of sentence structure. The composition and grammar test requires the matching of short descriptions with the compositions to which they apply, the selection of the correct one of two forms and of the reason why it is correct from three possibilities, the matching of composition forms with occasions for writing compositions and the recognition of whether sentences are punctuated correctly or not. The minimum essentials test deals with common pronoun, verb, and other errors, sentence structure, punctuation, and letter form. The fourth test of the series covers much the same content and vocabulary in addition.

Denver Public Schools, 414 Fourteenth Street, Denver, Colorado. Single copy, 10c.

Iowa Placement Examinations, Revised, English

Series EA1—Aptitude, Forms A and B

Series ET1—Training, Forms A and B

As the names imply, one series of these tests is primarily prognostic and measures the probable success of pupils in language work, whereas the other measures training or achievement. The former presents certain grammatical and rhetorical rules and calls for their application, requires the careful reading of two selections of prose and one of poetry with the answering of questions concerning the facts discussed and the grammatical and rhetorical forms used. The test on training calls for the recognition of correct and incorrect spelling, punctuation, grammar, and sentence structure.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

Kirby (Iowa) Grammar Test

Forms 1 and 2

Although this contains material rather similar to that in Charters' tests which are not listed for high-school use, it is included because the items are probably somewhat more difficult and norms for the four high-school years are available. Pupils are required to select the proper one of two grammatical forms and to choose the appropriate rule or principle from a given list.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$1.75 per 100.*

Pressey Diagnostic Tests in English Composition

Tests (a), (b), (c), and (d); Forms 1 and 2 of each

Though called tests in English Composition this series belongs rather under language and grammar, since the four tests deal with capitalization, punctuation, grammar, and sentence structure, respectively. The selection of items included was determined by

an analytical study of usage in magazines, newspapers, and letters and of frequent tendencies to errors. The tests are unusually short and easily scored.

Public School Publishing Company, Bloomington, Illinois. Tests (a) and (b), 75c per 100; tests (c) and (d), \$1.50 per 100.

Schutte English Diction Test

This consists of a fourteen-page narrative in which more than 400 words or expressions are marked. Each of those marked is to be checked if it contains an error in English diction. The majority do not interfere with the meaning and although many of them should be found by the well-trained high-school pupil some are difficult enough that few college students will mark them.

Public School Publishing Company, Bloomington, Illinois. \$3.00 per 25.

Tressler English Minimum Essential Test

Forms A, B, and C

The seven parts of each test deal with grammatical correctness, vocabulary, punctuation and capitalization, sentence structure, sentence sense, inflection and accent, and spelling. The spelling part of the test differs from that in most similar tests in that the pupils are actually required to spell a list of words.

Public School Publishing Company, Bloomington, Illinois. 75c per 25.

Wakefield Diagnostic English Test

Forms A and B

This test deals with noun and verb construction, voice, mood, tense, classification of sentences, and certain miscellaneous common errors. It is claimed that it possesses high diagnostic value, but each part is probably somewhat too short to justify this claim entirely.

Bureau of Administrative Research, College of Education, University of Cincinnati, Cincinnati. Single copy, 2½c; \$2.00 per 100.

Wilson Language Error Test

This test consists of three stories which may be used as three forms. Each story contains about thirty errors in choice and arrangement of words, grammatical forms, spelling, and so forth, and the pupils are expected to correct these errors.

World Book Company, 2126 Prairie Avenue, Chicago. 80c per 25.

LITERATURE

Abbott-Trabue Exercises in Judging Poetry

Series X and Y

Each of the two duplicate series contains thirteen exercises and each exercise four versions of a selection of poetry. The selections cover a wide range of difficulty. Those being tested are expected to select the best and worst of each set of four. It is probably wise to limit the use of these scales to the two upper years of high school.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, 5c; manual of directions, 25c.

Barrett-Ryan Literature Test

Forms A and B

In this test are from one to five multiple-choice exercises dealing with each of thirty-five books and selections commonly studied in high school. The content is entirely factual. This test is not thoroughly standardized, but probably will be soon.

Bureau of Educational Measurements and Standards, Kansas State Teachers College, Emporia, Kansas. 75c per 25; \$1.25 per 50; \$2.25 per 100.

Columbia Research Bureau English Test

This test, a portion of which deals with literature, has been described under the heading, "Language and Grammar" since most of it is in that field.

Kennon Test of Literary Vocabulary

Forms A and B

Each form of this test presents 100 rather difficult and unusual words taken from the literature commonly studied in college courses. It is rather difficult for use in high school and yet juniors and seniors at least should know the meaning of many of the words included.

Bureau of Publications, Teachers College, Columbia University, New York City. \$6.00 per 100.

Logasa-McCoy-Wright Tests for Appreciation of Literature

Test 1, Discovery of Theme

Test 2, Reader Participation

Test 3, Reaction to Sensory Images

Test 4, Comparisons

Test 5, Trite and Fresh Expressions

Test 6, Rhythm

These tests are supposed to be numbered and arranged in the order in which one learns to appreciate literature. They are probably somewhat difficult for high-school freshmen and sophomores, but not for juniors and seniors.

Public School Publishing Company, Bloomington, Illinois. Set containing one copy of each test, 10c.

Moe Book Tests

This is a series of more than 300 tests on as many different novels, plays, biographies, essays, and so forth, which are used for outside reading. Each test consists of ten multiple-answer exercises which test rather well whether the selection or book has actually been read. They are not standardized and are so recent that the extent of their use cannot be predicted, but they appear to offer real help to the teacher of high-school English.

Kenyon Press Publishing Company, Wauwatosa, Wisconsin. Single copy, 5c; set of tests on 100 commonly read books, \$3.75.

Satterfield Objective Tests in English

These are not standardized tests and the publishers state that they do not at present plan to attempt to collect results and establish norms. The tests are, however, receiving wide use and serve a desirable purpose rather well. The series consist of a number of different tests, each covering a book widely studied in high-school literature. At present eighteen books are included. Each test consists of several sub-tests in true-false, multiple-answer, completion, and other forms.

Smith, Hammond and Company, Atlanta, Georgia. \$1.25 per 35.

READING

Chapman Unspeeded Reading Comprehension Test

This consists of a series of thirty-one short paragraphs to be read very carefully. In each there is one word which spoils the meaning and this is to be crossed out. Speed is not scored.

J. B. Lippincott¹ Company, 2244 Calumet Avenue, Chicago. \$1.00 per 50.

Denver Curriculum Semester Test in Literature Comprehension

This test consists of ten selections from prose and poetry commonly read in the upper elementary and lower high-school years. Each is to be read after which a number of questions dealing with its content are to be answered. It is largely, if not entirely, a prognostic test of ability to read or study literature comprehendingly.

Denver Public Schools, 414 Fourteenth Street, Denver, Colorado. Single copy, 10c.

Haggerty Reading Examinations

Sigma 3; Forms A and B

This test consists of three parts which deal with vocabulary, sentence reading, and paragraph reading. Each of these parts is a power test. Provision is made for combining the scores into a total single measure of reading ability.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.10 per 25; manual of directions, 25c.

Inglis Tests on English Vocabulary

Forms A, B, and C

The words contained in these tests represent a sampling of the field covered by the intelligent general reader. Each contains 150 words placed in phrases or sentences followed by five synonyms or definitions. The proper one of the five in each case is to be indicated.

Ginn and Company,² 2301 Prairie Avenue, Chicago. 54c per 30.

Monroe Standardized Silent Reading Tests

Test III; Forms 1 and 2

This is a very widely used test which consists of twelve paragraphs to be read. A single question concerning each must be answered. Rate and comprehension scores are both provided for. It is one of the simplest reading tests to give and score.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 100.

Stone Narrative Reading Test for Junior High School

This test consists of a single continuous narrative to be read, after which questions based upon it are to be answered. It is somewhat difficult to give, but is included be-

¹The Lippincott Company's home office is at 227 South Sixth Street, Philadelphia.

²Ginn and Company's home office address is 15 Ashburton Place, Boston. Other addresses are 70 Fifth Avenue, New York City; 95 Luckie Street, Atlanta, Georgia; 1913 Bryan Street, Dallas, Texas; 199 East Gay Street, Columbus, Ohio; and 45 Second Street, San Francisco.

cause of its rather distinctive nature of dealing with continuous narrative. Both comprehension and rate scores may be secured.

*Public School Publishing Company, Bloomington, Illinois. Single copy, 5c;
\$4.00 per 100.*

Thorndike Test of Word Knowledge

Forms A, B, C, and D

Each test consists of 100 words, selected on the basis of the data in Thorndike's "Word Book" and arranged in order of importance. It is better suited for freshmen and sophomores than for juniors and seniors.

Bureau of Publications, Teachers College, Columbia University, New York City. \$1.50 per 100.

Thorndike-McCall Reading Scale for the Understanding of Sentences

Forms 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10

This is one of the most widely used reading tests. It consists of a series of paragraphs of increasing difficulty about each of which questions are to be answered. It measures power or comprehension, yielding no rate score.

Bureau of Publications, Teachers College, Columbia University, New York City. \$2.00 per 100.

Van Wagenen Reading Scales

History Scales A and B

General Science Scales A and B

English Literature Scales A, B, and C, Alpha and Beta

In form these are similar to many other reading scales, consisting of a series of paragraphs to be read and statements concerning their content to be marked true or false. They are distinctive, however, in that all the material dealt with in each scale is taken from a single field of subject matter. Their chief purpose is therefore to be prognostic of the probable success of pupils in the three subjects dealt with. English Literature Scales, Alpha and Beta, have appeared very recently. They differ from A, B, and C, in that they contain both poetry and prose, whereas the former include only prose, and that they test comprehension through multiple-answer rather than true-false exercises.

Public School Publishing Company, Bloomington, Illinois. \$3.00 per 100.

Whipple High-School and College Reading Test

Forms A and B

Form A contains material dealing with the League Assembly and Form B with the exclusion of the Japanese. Various questions and directions, inserted in the material to be read, are to be answered or carried out. Although a time limit is provided, the test appears to measure chiefly carefulness of reading.

Public School Publishing Company, Bloomington, Illinois. \$3.00 per 100.

SPELLING

Buckingham Extension of Ayres Spelling Scale

This extension includes 505 words in addition to the 1000 in the original Ayres scale, most of the added ones being relatively difficult. The additional words were not

chosen in the same manner as the original thousand and hence do not belong to a fundamental writing vocabulary in the same sense.

Public School Publishing Company, Bloomington, Illinois. Single copy, 14c; three or more copies, 12c each.

National Spelling Scales

For Junior High Schools; Forms A, B, C, and D

For Senior High Schools; Forms A, B, and C

Each test consists of slightly over fifty sentences in completion form, the words to be spelled being omitted. The complete sentences are read by the examiner and the proper words written in by the pupils. Words were selected and arranged according to their difficulty as found in the Buckingham Extension of the Ayres Spelling Scale, the Seven S Spelling Scales, the Iowa Spelling Scales, and the Thorndike Word Book.

National Publishing Society, Mountain Lake Park, Maryland. Single copy, 2c; directions, 10c; record sheet, 2c.

Simmons Standard High School Spelling Scale

This consists of some 1500 words which apparently give unusual difficulty in high school. They were given to a large number of high-school freshmen and seniors and norms for these two years established.

E. P. Simmons, Elliott, Iowa. Single copy, 30c; 25 or more copies, 25c each.

Sixteen Spelling Scales Standardized in Sentences for Secondary Schools

(Seven S Spelling Scales)

Each of these scales consists of twenty words incorporated in sentences for purposes of dictation. The words only are written by the pupils, however. The difficulty of each of some 2000 commonly used words was carefully determined and from these the 400 actually used in the scales selected. Sixteen of the scales are relatively easy and the other four decidedly more difficult.

Bureau of Publications, Teachers College, Columbia University, New York City. Booklet containing all scales, account of derivation, and so forth, 40c.

HEALTH

Gates-Strang Health Knowledge Tests

Complete series and Form 1

The complete series consists of 520 multiple-answer exercises for each of which the difficulty has been determined. Form 1 consists of sixty-four of these exercises arranged in order of increasing difficulty. Many of the items should be answered by elementary-school children, but others are hard enough for those in high school.

Bureau of Publications, Teachers College, Columbia University, New York City. Complete series with account of derivation, \$1.00; Form 1, \$3.00 per 100.

HISTORY AND CIVICS

Barr Diagnostic Tests in American History

Series A and B

The five sub-tests contained herein attempt to measure historical comprehension, chronological judgment, weighing historical evidence, evaluation of facts and ability to

select casual relationships. The function is, therefore, not primarily to measure achievement in history, but to diagnose the historical abilities of the pupils.

Public School Publishing Company, Bloomington, Illinois. \$4.00 per 100.

Brown-Woody Civics Test

Form A

The content of this test is based upon what is common to at least five widely used textbooks. It deals with local, state, and national government and covers civic vocabulary, information, and thinking.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

Denver Curriculum Semester Tests in American History and Government

Tests I and II; Form A of each

Each test consists of sixty multiple-answer exercises, those in Test I covering our history up to shortly before the Civil War, and those in Test II since that time. Though most of the exercises are factual, a few test historical reasoning.

Denver Public Schools, 414 Fourteenth Street, Denver, Colorado. Single copy, 10c.

Denver Curriculum Semester Tests in World History

Tests I and II

These are similar to the Denver American History and Government Tests, each containing sixty multiple-answer exercises. Test I covers world history up until about 1700, and Test II, history since that time.

Denver Public Schools, 414 Fourteenth Street, Denver, Colorado. Single copy, 10c.

Gregory Tests in American History

Test III; Forms A and B

Six of the seven parts of this test deal with different periods of American History and the seventh with miscellaneous facts and dates. The ability required to perform the exercises satisfactorily is entirely factual or informational.

Bureau of Administrative Research, College of Education, University of Cincinnati, Cincinnati. Single copy, 4c; \$3.50 per 100.

Gregory-Owens Test in Mediaeval and Modern History

Forms A and B

The seven parts of this test include a total of 134 exercises covering mediaeval history from different standpoints. As the only really standardized test in mediaeval history and probably the better of the two in modern history, this test, which is relatively new, should receive rather wide use.

Bureau of Administrative Research, College of Education, University of Cincinnati, Cincinnati. Single copy, 4½c; \$4.00 per 100.

Hill Tests in Civic Information and Attitudes

Each of these two tests consists of twenty multiple-answer exercises dealing with local and national government and various other matters which citizens should know

or in which they should take interest. The one on civic attitudes might almost be called a test of moral character.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 100.

Kepner Background Test in Social Science

Forms A and B

These tests are diagnostic, being intended to measure the social science background possessed by pupils beginning any social science in high school. Most of the items contained in the tests are historical and deal with American History. There are, however, a number dealing with the history of other countries and with civic, economic, and other facts.

Harvard University Press, Cambridge, Massachusetts. \$1.25 per 25. (Soon to be published by Ginn and Company, 2301 Prairie Avenue, Chicago.)

Pressey-Richards American History Test

This is a test in the understanding of American History. The four parts deal with character judgment, historical vocabulary, sequence of events, and cause and effect relationships. It is one of the easiest history tests to give and score.

Public School Publishing Company, Bloomington, Illinois. \$2.00 per 100.

Tyrell American History Exercises

Sheets 1 to 48

This series of sheets covers American History from the discovery of this country up to the present time. There are three sheets containing different types of objective exercises on each of sixteen periods. They probably have the greatest usefulness when placed in pupils' hands during the study period with instructions that they study until able to answer them correctly. No norms are available.

Palmer Company, 120 Boylston Street, Boston. \$1.35 per 50 copies of each of the three sheets on one period.

Vannest Diagnostic Test in Modern European History

This test is based upon one rather widely used textbook. The various sub-tests deal with time sense, place sense, evaluation of fact, thought, and information.

Indiana University Bookstore, Bloomington, Indiana. Single copy, 10c; 11 to 50 copies, 2c each; more than 50 copies, 1½c each.

HOME ECONOMICS

Illinois Food Test

This is an information test on foods consisting of 100 exercises arranged under fourteen headings.

Public School Publishing Company, Bloomington, Illinois. 75c per 25.

King-Clark Food Test for Grades VI thru XII

This is a revision of the earlier test on the same subject by King. It consists of sixty multiple-answer exercises which deal with information about foods and their preparation.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.00 per 25.

Murdoch Analytic Sewing Scale for Measuring Separate Stitches

This scale consists of five specimens of each of five varieties of stitches, these varieties being running, backstitch, overcasting, combination, and hemming. The chief purpose of constructing it was to make a scale for pupils' use which could be handled more easily than the original Murdoch Sewing Scale. It may be used to supplement this scale, especially since the same norms apply.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, 25c.

Murdoch Sewing Scale

In this, the original scale, there are fifteen sewing samplers arranged in order of merit, three views of each being shown. It is better suited for teachers' than pupils' use because it is difficult for the latter to distinguish between the degrees of merit.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, \$1.50.

Stevenson-Trilling Test in Comprehension of Patterns

The five parts of this test deal with recognition of parts of patterns, comprehension of pattern lines, understanding of notches, alteration of patterns, and placing patterns on material. It is, therefore, intended to be diagnostic of these five necessary performances in the use of patterns.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 25.

LATIN

Godsey Latin Composition Test

Forms A and B

Each of the three parts of this test presents eleven English sentences and their Latin translations, for some part of which four possible forms are given. The pupils being tested are to select the proper form in each case and from a list of rules choose the one which applies. A number of the sentences are too difficult to be handled until near the end of the first-year study of Latin and some are difficult enough that the tests can be used later, in the second, third, and fourth years.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.00 per 25.

Henmon Latin Tests

Tests 1, 2, 3, 4, and X

The present series of tests represent a revision of earlier ones. Each contains two parts, vocabulary and sentences, to be translated. The four numbered tests are duplicates, each containing fifty words and ten sentences. Test X is shorter, containing only twenty-five words and twelve sentences. The difficulty of the words and sentences has been carefully determined. These are probably to be preferred to other Latin tests which attempt to fulfill just the same functions.

World Book Company, 2126 Prairie Avenue, Chicago. 50c per 25.

Inglis Latin Tests

General Vocabulary; Form A

Syntax; Form A

Morphology; Form A

The vocabulary test contains 150 Latin words for which the English equivalents are to be given. The one on syntax deals with cases and constructions which should

be used in translating English expressions contained in sentences, cases following prepositions, adjectives, and verbs, modes, tenses, names of constructions, and conjunctions which should be used to translate verbs contained in English sentences. The morphology test calls for certain specified forms of various nouns, pronouns, adjectives, adverbs, and verbs and for the identification of the forms of certain given nouns and verbs. Scoring is not on the basis of difficulty, but on that of frequency of occurrence of the various items. This of course means that the selection of content was based on the study of such frequency of occurrence. The tests are not yet thoroughly standardized.

Harvard University Press, Cambridge, Massachusetts. \$1.25 per 25. (Soon to be published by Ginn and Company, 2301 Prairie Avenue, Chicago.)

Orleans-Solomons Latin Prognosis Test

Form A

The chief feature of this test is that it presents to the pupil a number of short lessons in Latin and attempts to determine how correctly and well these lessons are learned. The material includes vocabulary, translation, and grammar. The function of the test is to determine in advance the probable quality of an individual's work in Latin. It should not be used with pupils who have already studied the subject.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

Pressey Test in Latin Syntax

Form I

This test contains thirty-two English sentences with four possible translations of each into Latin. These translations differ in the forms of the words used, not in the vocabulary. The proper translation of each sentence is to be indicated.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Starch-Watters Latin Test

This test consists of a 100-word Latin vocabulary and sentences from first-year Latin, Caesar, Cicero, and Virgil to be translated. The material is chosen so as to represent a sampling of high-school Latin.

Daniel Starch, 1374 Massachusetts Avenue, Cambridge, Massachusetts. Single copy, 2c.

Stevenson Latin Vocabulary Test

Forms I, II, and III

Each of the three parts of this test contains forty English words and the Latin equivalents of twenty of them. The proper connections are to be made.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Stevenson-Coxe Latin Derivative Test

Forms I, II, and III

Each of the three parts of this test contains twenty-five Latin and twenty English words, each of which is derived from one of the Latin words. Pupils are to indicate the one from which each is derived.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Tyler-Pressey Test in Latin Verb Forms

Form 1

Thirty-two Latin verb forms are presented with four possible English translations of each, the differences being in mood, tense, number, person, and so forth. The proper one of the four translations in each case is to be underlined.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Ullman-Kirby Latin Comprehension Test

Forms I and II

This Latin test is similar to a number of the most common reading tests, such as the Thorndike-McCall and others. It consists of ten short Latin paragraphs with three or four questions in English concerning the content of each. The answers are to be given in English.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$1.75 per 100.*

White Latin Test

Forms A and B

Part I contains 100 Latin words with four possible translations of each, and Part II twenty Latin sentences with three or four possible translations of each. The correct translation is to be indicated in each case. The test is suited for use from the first year of high school on through the second, third, and fourth years.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.20 per 25.

MATHEMATICS

ALGEBRA

Columbia Research Bureau Algebra Test

Forms A and B

Part I of this test consists of a number of exercises in the mechanical operations of algebra. Most of these exercises deal with the solution of equations and a few with graphs. Part II consists of written problems. The material contained in the test is fairly difficult, some of it belonging in college rather than high school.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

Douglass Standard Diagnostic Tests for First-Year Algebra

Series A and B; Forms I and II of each

Series A consists of exercises in the four fundamental operations and in the solution of simple equations. Series B contains more difficult exercises, its seven parts dealing with fractions, factoring, formulae and fractional equations, simultaneous equations, graphs, square roots, exponents and radicals, and quadratic equations. The arrangement is such that Series B may be given in several parts, each covering a particular unit of work, rather than all at once.

Bureau of Administrative Research, College of Education, University of Cincinnati, Cincinnati. Series A, single copy, 2c; \$1.60 per 100; Series B, single copy, 4c; \$3.50 per 100.

Hotz First Year Algebra Scales

Addition and Subtraction Scale; Series A and B

Multiplication and Division Scale; Series A and B

Equation and Formula Scale; Series A and B

Graph Scale; Series A and B
Problem Scale; Series A and B

Each of the Series A scales contains a selection of about one-half of the exercises in the corresponding Series B scale. The number of exercises in A varies from eight to twelve, in B from eighteen to twenty-five. The scales are intended to yield measures of class rather than of individual achievement.

Bureau of Publications, Teachers College, Columbia University, New York City. 70c per 100, except Graph Scale which is \$1.25 per 100; manual of directions, 75c.

Illinois Standardized Algebra Test

This test is composed of four parts, all of which deal with the simple equation. Part I has the two unknowns in the first member of the equation, Part II one unknown in each, Part III is similar to II, but brings in the parenthesis, and Part IV is likewise similar but introduces fractions. This has superseded the earlier Monroe Standardized Algebra Test.

Public School Publishing Company, Bloomington, Illinois. \$2.50 per 100.

Schorling-Clark-Lindell Instructional Tests in Algebra with Goals for Pupils of Varying Abilities

This is a series of fifty-two tests with accompanying answers intended for use by pupils as learning devices and not as standardized tests. Provision is made for review, recording improvement, and so forth.

World Book Company, 2126 Prairie Avenue, Chicago. Booklet containing all tests, 28c.

GEOMETRY

Columbia Research Bureau Plane Geometry Test

Forms A and B

Part I consists of sixty-five true-false statements concerning various aspects of geometry and Part II of thirty-five problems designed to test geometric reasoning ability. This is probably the best available test in plane geometry, although the norms at present available are for college freshmen rather than high-school students.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.20 per 25.

Minnick Geometry Tests

Test A, Drawing of Figures

Test B, Stating of Hypotheses and Conclusions

Test C, Recalling Facts and Figures

Test D, Selecting and Organizing Facts to Produce a Proof

These were formerly the leading tests in this subject, but appear to be going out of use and two or three newer ones taking their place. Their scoring is unusual in that provision is made for both giving credit for correct answers and penalizing for incorrect ones.

Public School Publishing Company, Bloomington, Illinois. \$2.50 per 100.

Renfrow Diagnostic Tests in Plane Geometry

Tests I and II; Forms A and B of each

Test I deals with lines, triangles, polygons and circles, covering the work usually taught in the first semester, and Test II with what is usually taught in the second se-

mester. Most of the exercises on both tests consist of figures which are to be dealt with in different ways.

Bureau of Administrative Research, College of Education, University of Cincinnati, Cincinnati. Single copy, 5c; \$1.00 per 25.

Schorling-Sanford Achievement Test in Plane Geometry

Forms A and B

Each form consists of five parts; the first of which is a completion exercise on various geometrical facts; the second requires that conclusions be drawn from given data; the third that the correctness of conclusions be judged; the fourth, the analysis of construction, and the fifth, computation.

Bureau of Publications, Teachers College, Columbia University, New York City. Single copy, 10c; manual of directions, 25c.

Webb Geometry Test

Form A

Two of the five parts of this test are in completion form, two in multiple-answer form, and the fifth calls for construction work. The first completion part is all based upon a single figure and requires various numerical calculations.

Public School Publishing Company, Bloomington, Illinois. 75c per 25.

MATHEMATICS, GENERAL

Iowa Placement Examinations, Revised, Mathematics

Series MA1—Aptitude; Forms A and B

Series MT1—Training; Forms A and B

The aptitude test deals with mathematical material which is not in general as directly the product of instruction, particularly high-school instruction, as is that contained in the training test. In addition to dealing with quantities, principles, and problems of various sorts it also tests the pupils' ability to read a mathematical discussion. The training test contains items in arithmetic, algebra, and geometry. The tests are fairly difficult and are perhaps better suited for use with those beginning college mathematics than with those beginning their high-school work in this subject, yet appear to be of distinct value in the latter connection.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

MODERN FOREIGN LANGUAGE

FRENCH

Columbia Research Bureau French Test

Forms A and B

This test consists of 100 French words with five possible English meanings of each, seventy-five true or false French statements and 100 English sentences partly translated, the rest to be supplied. The time required is fairly long, being something more than an hour and a half. The test is based upon a selection of elements from sixteen first-year texts and covers such a range of difficulty that it may be used from the first year of high-school through several years of college French.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

Handschin Modern Language Tests—French

Silent Reading Tests A and B

Comprehension and Grammar Test A

Silent Reading Test A requires twelve questions stated in French to be answered in the same language. Silent Reading Test B presents a short story in French and requires that ten questions about it be answered in either English or French. The Comprehension and Grammar Test presents six easy French sentences, some of which contain blank spaces. These are to be studied for a short time and then reproduced from memory, after which they are to be rewritten with certain changes in verb, noun, article, and adjective forms. In view of the other tests which have appeared recently these are probably about the least valuable of those mentioned here.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.00 per 25.

Henmon French Tests

Tests 1, 2, 3, and 4

These are similar to the same author's Latin tests. Each contains sixty French words arranged in order of increasing difficulty and twelve sentences, likewise arranged, to be translated into English. The words used are common to twelve widely used beginners' textbooks. The four tests are duplicate forms.

World Book Company, 2126 Prairie Avenue, Chicago. 50c per 25.

Iowa Placement Examinations, Revised, French

Series FT1; Forms A and B

The first part of this test calls for the English synonyms of sixty French words, the second part for correcting the mistakes in forty French sentences, the third for picking the proper one of four verb forms to go with the given remainder of each of forty sentences and the last gives three paragraphs in French which are to be read and questions concerning them to be answered in English.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

Twigg French Vocabulary Test

Form A

The words included in this test were selected after a count of 100,000 word occurrences in standard literature, scientific works, magazines, newspapers, and letters. A total of 150 French words are presented for which English meanings are to be given, fifty of them being in a list and each of the other 100 contained in a sentence. These tests are not yet thoroughly standardized.

Harvard University Press, Cambridge, Massachusetts. \$1.25 per 25. (Soon to be published by Ginn and Company, 2301 Prairie Avenue, Chicago.)

GERMAN

Columbia Research Bureau German Test

Forms A and B

This is similar to the French test published by the Columbia Research Bureau, being based upon a study of elementary texts and containing a vocabulary test, a comprehension test, and a grammar test. It is also suitable for use through high school and college.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

SPANISH

Columbia Research Bureau Spanish Test

Forms A and B

This is very similar to the French and German tests previously described, being based upon the common element in a number of first-year books. It deals with vocabulary, comprehension, and grammar and may be used in high-school and college work.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

Handschin Modern Language Tests—Spanish

Silent Reading Test A

This is similar to the corresponding test in French, consisting of fourteen questions in Spanish which are to be answered in the same language.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.00 per 50.

Iowa Placement Examinations, Revised, Spanish

Series ST1; Forms A and B

Part I of this test presents fifty Spanish words with five possible meanings for each, Part II requires correcting of mistakes in forty sentences, Part III, writing in the correct form of the verb in each of forty sentences, and Part IV, reading three paragraphs in Spanish and answering in English questions concerning them.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

MODERN LANGUAGE, GENERAL

Iowa Placement Examinations, Revised, Foreign Language

Series FA1—Aptitude; Forms A and B

The first part of this test deals with matters pertaining to English grammar. In the other three parts those taking the tests are required to deal with Esperanto in various ways, the purpose being to test their recognition of Esperanto words similar to those in English, Latin, French, and so forth, and to see how quickly they can learn various Esperanto facts presented to them. This test is, of course, intended to determine aptitude for foreign language, especially modern foreign language.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

Wilkins Prognosis Test in Modern Languages

The first part of this test is to be given before the student has studied foreign language and the second at the end of four weeks of either Spanish or French. The first part includes exercises in seeing and writing, hearing and writing, memory, and grammar concepts, all of which are given collectively, and also individual exercises in seeing and speaking, and hearing and speaking. The second part deals with articles, plurals, verb forms, adjectives, and simple translation.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.20 per 25.

MUSIC

Beach Standardized Music Tests

Series I

This test is intended to measure knowledge of rhythm, tone, melody, and symbols. It involves recognition both from print and by ear.

Bureau of Educational Measurements and Standards, Kansas State Teachers College, Emporia, Kansas. \$1.10 per 25; \$4.00 per 100; manual of instructions, 35c.

Hutchinson Music Test, Number 1

This is a test of ability to read music and to recognize scores from well-known songs and operas.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Kwalwasser-Ruch Test of Musical Accomplishment

The sub-tests contained herein deal with knowledge of musical symbols and terms, recognition of symbol names, detection of pitch and time errors in a familiar melody, recognition of pitch names, knowledge of time and key signatures, of note and rest values, and recognition of familiar melodies from notation. It probably gives the best all-around measure of musical ability of any standardized musical test suitable for use in high school.

Bureau of Educational Research and Service, University of Iowa, Iowa City. Single copy, 6c; \$5.00 per 100.

Seashore Music Talent Chart

This consists of a chart upon which pupils are to be rated according to their judgments of certain musical qualities of phonograph records and five such records which deal, respectively, with pitch, intensity, time, consonance, and memory. A prognostic measure of possible musical achievement is yielded rather than one of present achievement.

Columbia Graphophone Company, New York City. Each record, \$1.50.

Torgerson-Fahnestock Music Test

Part A—Theory

Part B—Practice (Ear Training)

Though probably better suited for use in the elementary grades, this test may also be employed in high school. Part A tests theoretical knowledge concerning musical symbols, notation, and so forth, and Part B ability to write syllables, measure lines, notes, and so forth, which the pupils have heard played.

Public School Publishing Company, Bloomington, Illinois. 75c per 25, including both Parts A and B.

NATURAL SCIENCE

BIOLOGY

Cooprider Information Exercises in Biology

The exercises included deal with definitions of terms, best reasons, classification of animals and plants, and other biological information.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Jordan-Foran Biology Test

This tests various items of biological information and, to some extent, reasoning, and requires the identification of a number of drawings.

Catholic Education Press, Brookland Station, Washington, D. C., \$1.00 per 25.

Ruch-Cossmann Biology Test

Forms A and B

This test contains one sub-test dealing with biological information, another with best reasons or definitions, a third which requires the identification of drawings, a fourth dealing with Mendelian inheritance, and a fifth, in completion form, on factual information. The test is difficult enough to be used in both high school and college.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

BOTANY

Michigan Botany Test

The four parts of this test deal with botanical information and reasoning ability from different standpoints.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 25.

CHEMISTRY

Gerry Test of High School Chemistry

Forms A and B

Each test consists of twenty-five exercises of various sorts which test knowledge of chemical terms, formulae, and other information.

Ginn and Company, 2301 Prairie Avenue, Chicago. 36c per 30.

Iowa Placement Examinations, Revised, Chemistry

Series CA1—Aptitude; Forms A and B

Series CT1—Training; Forms A and B

The aptitude test deals with certain elements of mathematical ability, comprehension of selections taken from chemistry textbooks, and items of chemical and physical knowledge which are more or less commonly known. The training test deals with knowledge of chemical facts, including valence, formulae, and so forth, and the ability to solve equations and problems.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

Powers General Chemistry Test

Forms A and B

The two parts of this deal with range of information about chemistry and the ability to solve problems in chemistry.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.10 per 25.

Rauth-Foran Chemistry Tests

Tests I and II

These tests require the identification of substances as elements, compounds or mixtures, the giving of the correct symbols or formulae for substances, the marking of a number of informational statements as true or false, the filling in of completion exercises,

and the solution of problems. Test I covers the work of the first semester and Test II that of the second.

Catholic Education Press, Brookland Station, Washington, D. C. \$1.00 per 25.

Rich Chemistry Test

Forms Gamma and Epsilon

Each form consists of twenty-five exercises which cover chemical information, habits acquired in laboratory work, ability to think and to solve numerical problems.

Public School Publishing Company, Bloomington, Illinois. \$1.00 per 25.

GENERAL SCIENCE

Denver Curriculum Semester Tests in General Science

For Grades Seven B, Seven A, and Eight A

The first and last of these tests cover three general topics apiece and the second one, six topics. Each contains two parts, one multiple-answer and the other true-false. Although intended for Grades VII and VIII, they may well be used in high-school courses in this subject.

Denver Public Schools, 414 Fourteenth Street, Denver, Colorado. Single copy, 10c.

Dvorak General Science Tests

Forms R-1, S-2, and T-2

Form R-1 is designed for use rather early in the course, whereas the other two forms are duplicates and intended to be used near the end of the course. Each consists of sixty multiple-answer exercises.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Giles-Thomas-Schmidt General Science Examinations

Numbers 1 to 22; Series A and B of each

This set consists of one true-false and one multiple-answer test on each of eleven topics. These are not thoroughly standardized, but may well be used in place of teacher-made tests.

Eau Claire Book and Stationary Company, Eau Claire, Wisconsin. Set containing one copy of each, 30c.

Powers General Science Test

Form A

This consists of seventy multiple-answer exercises arranged in three parts of slightly different form.

Bureau of Publications, Teachers College, Columbia University, New York City. \$2.00 per 100.

Ruch-Popenoe General Science Test

Forms A and B

The first part of this test contains fifty multiple-answer exercises and the second twenty exercises, each of which contains a drawing and several sentences in completion form dealing with the drawing. It is probably the best available test in this subject.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.30 per 25.

PHYSICS

Iowa Placement Examinations, Revised, Physics

Series PA1—Aptitude; Forms A and B

Series PT1—Training; Forms A and B

The aptitude test is very similar to the one in chemistry, dealing with mathematical ability, comprehension of paragraphs taken from physics texts, and knowledge of rather common physical and chemical facts. The training test requires the completion of statements and equations, the marking of statements as true or false, the identification of fundamental laws or principles, according to their discoverers, and the solution of problems.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100.*

Iowa (Camp) Physics Tests

Series A—Mechanics; Forms 1 and 2

Series B—Heat; Forms 1 and 2

Series C—Electricity and Magnetism; Forms 1 and 2

Each test consists of eleven or twelve exercises arranged in order of increasing difficulty. The exercises were selected from a much longer list carefully evaluated by the author of the tests.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Hughes Physics Scales

Information R, Division 1

Information S, Division 2

Thought R, Division 1

Thought S, Division 2

Each scale consists of thirty exercises arranged in three groups, each of which is more difficult than the preceding one. Division 2 of each scale is apparently more difficult than Division 1.

Public School Publishing Company, Bloomington, Illinois. 50c per 25.

Peters-Watkins Objective Tests for High School Physics

There are seventeen tests in this series, each containing two parts, one of which is designed to test knowledge of fundamental principles and the other the application of these principles. Although tentative norms are available, these tests appear to be better suited for use as part of instructional procedure than as standardized tests.

C. J. Peters, University High School, Columbia, Missouri. Booklet containing all tests, 25c; \$20.00 per 100.

STUDY

McClusky-Dolch Study Outline Test

Tests I, II, and III

Each test consists of a selection several paragraphs in length which the pupils are to read and outline. Test II is somewhat easier than Test I and Test III still easier.

Public School Publishing Company, Bloomington, Illinois. Package containing 25 copies of Test I, 15 of Test II, and 10 of Test III, 75c.

GENERAL SURVEY

Iowa High School Content Examination

Long Form; Forms A and B

Abridged Form; Forms A-1 and B-1

The four parts of each of these tests deal with English literature, mathematics, science, and history and social science. The long form requires about eighty minutes to give and the abridged form fifty-five minutes. Though especially intended for use with applicants for admission to college these tests may well be used near the close of the high-school course.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
Single copy, 8c.*

Iowa Placement Examinations, Revised

Forms A and B

This series of tests is intended particularly for students entering college, but may also be used in high school. It consists of aptitude and training tests in the following subjects: chemistry, English, foreign language, French, mathematics, physics, and Spanish. The tests in each subject are described above under that subject.

*Bureau of Educational Research and Service, University of Iowa, Iowa City.
\$3.50 per 100 of each test.*

INTELLIGENCE¹

Dearborn Group Tests of Intelligence

Series II, Revised Edition, General Examinations C and D

Examinations C and D are not duplicate forms, but are merely two parts of the test. The material contained in them is largely non-verbal. These tests are probably not difficult enough to give satisfactory results in the upper two years of high school, but work fairly well with freshmen and sophomores.

*J. B. Lippincott Company, 2244 Calumet Avenue, Chicago. \$1.00 per 25;
manual of directions, 25c; scoring stencils, 25c.*

Haggerty Intelligence Examination

Delta 2

Similar to the test previously described this is somewhat too easy for juniors and seniors, but yields fairly satisfactory results in the lower years. It comprises six sub-

¹Several of the intelligence tests widely used in connection with determining the admission of applicants to institutions of higher learning, and, therefore, sometimes given to high-school seniors, are not included in the list given in the text because they are too difficult or otherwise unsatisfactory for general use in high school. Four of these tests, in what the writer considers their order of merit beginning with the best, are as follows: Thorndike's Intelligence Examination for High-School Graduates (Bureau of Publications, Teachers College, Columbia University, New York City); Brown University Psychological Examination (J. B. Lippincott Company, 2244 Calumet Avenue, Chicago); Thurstone Psychological Examination for High-School Graduates and College Freshmen (American Council on Education, 26 Jackson Place, Washington, D.C.); and Army Group Intelligence Scale Alpha (Bureau of Educational Measurements and Standards, Kansas State Teachers College, Emporia).

tests which are modifications of the tests used in the army and contain both verbal and non-verbal material.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.10 per 25; manual of directions, 25c.

Herring Revision of Binet-Simon Tests

Groups A, B, C, D, and E; Form A

This is a scale of tests for individual use which gives results so closely approximating those obtained from the Stanford Revision that it may be considered practically a duplicate form thereof. The five groups mentioned above differ in length. Each includes all of the tests in the previous one and some additional ones. It is recommended that the longest group for which time is available be given.

World Book Company, 2126 Prairie Avenue, Chicago. Examination manual, \$1.00; individual record cards, \$1.00 per 25.

Miller Mental Ability Test

Forms A and B

This is one of the shorter group intelligence tests and is suitable for use throughout the four years of high school. The material composing it is entirely verbal.

World Book Company, 2126 Prairie Avenue, Chicago. 80c per 25; manual of directions, 15c.

Otis Group Intelligence Scale

Advanced Examinations; Forms A and B

This is one of the most widely used group intelligence tests and is suitable for the upper elementary grades, high school and above. It is one of the two or three best such tests for high-school use.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.25 per 25; manual of directions, 30c.

Otis Self-Administering Test of Mental Ability

Higher Examination; Forms A and B

This test requires only about half the time of the Otis Group Intelligence Scale, but the results are probably not as reliable. It is called self-administering because all that the examiner needs to do is to give a few initial directions and watch the time. It is therefore better suited than most tests for use by inexperienced and unskilled examiners. The material is entirely verbal.

World Book Company, 2126 Prairie Avenue, Chicago. 80c per 25.

Pressey Senior Classification and Verifying Tests

These two tests, which are essentially duplicate forms, are among the simplest and easiest tests to give and score. Results from the two combined are fairly reliable.

Public School Publishing Company, Bloomington, Illinois. \$1.25 per 100.

Stanford Revision of the Binet-Simon Tests

This is generally considered the best individual scale in the English language. At any rate it is by far the most widely used. The chief difficulty in using it is that it re-

quires a considerable amount of material and that some of the scoring is not entirely objective.

C. H. Stoelting Company, 3037 Carroll Avenue, Chicago. Material necessary for giving, \$8.55; complete instructions, \$2.95; condensed guide, \$1.30; record booklets, \$2.50 per 25; abbreviated filing record blanks, \$1.30 per 25.

Terman Group Tests of Mental Ability

Forms A and B

This is a rather short test though somewhat longer than the Miller, Otis Self-Administering, or Pressey. Considering both reliability and amount of time required, it is probably as good as any group intelligence test for high-school use.

World Book Company, 2126 Prairie Avenue, Chicago. \$1.20 per 25.

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